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ABSTRACT

This handbook presents a step-by-step outline of how to successfully launch and implement a new educational concept or program. A heavy emphasis is placed on the "program marketing" approach, which assumes that a new program must be "sold" to its "consumers" (i.e., teachers or students) if it is to be successfully implemented. Because the handbook is meant to be used as a ready reference, it is organized into chapters that correspond to the various stages of program development and implementation, including conceptualization, planning, development, piloting, implementing, and review and feedback. To further facilitate quick reference, the handbook's format is based on "information mapping." Key concepts are spotlighted in the left margin and major sections are divided into information blocks by heavy black lines. Primary concepts in each section are capitalized, while secondary concepts are printed in lower case. Illustrations of particular concepts are included in the appendix. (Author/JG)

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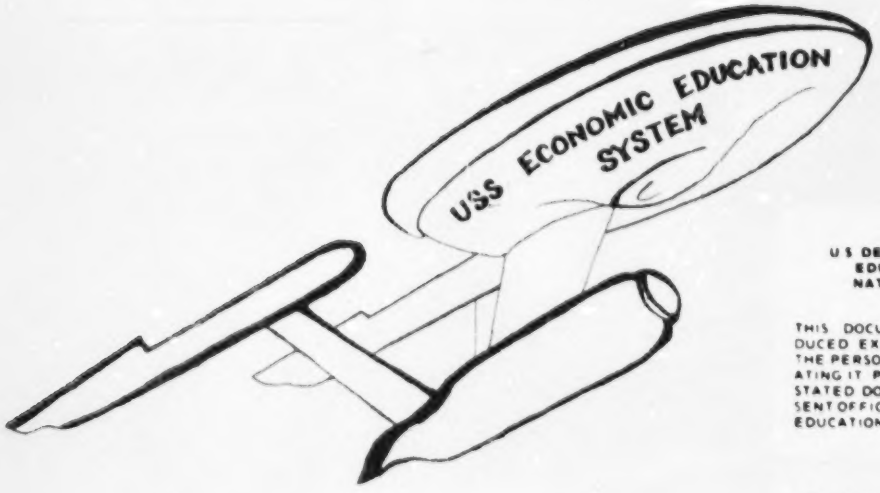

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LAUNCHING NEW EDUCATIONAL CONCEPTS:

A Guide to Planning, Developing, and Marketing Educational Programs

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I. GENERAL INTRODUCTION

"Launching New Educational Concepts: A Guide to Planning, Developing, and Marketing Educational Programs" was contracted as part of the ongoing staff development effort at the Arizona Department of Education (ADE). This handbook presents a step-by-step outline of how to successfully launch and implement a new educational concept. The action verb "launch" was deliberately selected to represent the dynamic, sometimes laborious, task of developing and "selling" a program. Just as the United States moon missions required detailed formulation, coordination and promotion by the administration to obtain the backing of the American people, educational programs require careful planning, execution, and marketing.

The Application of Marketing to Education

To some the idea of marketing or of selling a program as though it were a product might seem foreign and unpleasant. However, with proper consideration of various market strategies, the program's chances of acceptance and utilization are substantially increased. Further, everyone at certain times engages in promotion. At a job interview, applicants attempt to market themselves in the most attractive fashion. In the classroom, the instructor markets the material to optimize its receptivity by the students. When the program is one you believe in, the marketing aspect becomes positive and enjoyable. (Because of the handbook's heavy emphasis on program marketing, a marketing vocabulary will be utilized. By thinking in terms of consumers, products, markets, management, buying habits, etc., a pragmatic marketing design can be conceptualized.)

Basic to the marketing approach is the concept that the consumer must be sold the product. This fundamental assumption also applies to education. In many cases, the product's consumers will be teachers who have developed patterns of behavior (i.e., teaching styles) resistant to change. In order to successfully implement the program, the teachers must learn a new set of behaviors. To accomplish this difficult task, they must believe in the program and become motivated to utilize it. In short, you must sell your program; it rarely will sell itself.

This handbook emphasizes the service aspect of marketing. In its most simple form, servicing focuses on consumer needs and how best to meet them. As the new educational program progresses through planning, development and implementation, emphasis remains on the needs of the ultimate consumer – on how best to make the program interesting, educationally valuable, and easy to use.

How to Use this Handbook

"Launching New Educational Concepts" is not meant to be read completely in one sitting. Rather, it is a reference, to be used as the design of a new educational program progresses from awareness of a problem, through the planning and development stages, to implementation and evaluation. The handbook is detailed, but flexible. For small programs (e.g., writing a brief pamphlet), it can be utilized as a handy checklist of potential considerations. For the development of a complex program, the handbook will become a reference for development of detailed program planning.

Most ADE staff members are already experienced in one or more of the areas developed in the handbook. When this is the case, the manual can serve as an informal reminder of basic points, and a useful place to keep additional notes drawn from the

staff member's professional experience. For those planning and marketing areas in which the staff member feels less confident, the guide will provide an introduction to program conceptualization, planning, development, piloting, implementation, and evaluation.

The format of the guide is based on "information mapping". Key concepts are spotlighted in the left-hand margins. Primary concepts in each section are capitalized; secondary concepts are printed in lower-case letters. The major sections of each chapter (e.g., Discovering the Problem, Problem Definition, and Feedback) are divided into information blocks with heavy black lines. This type of format facilitates quick reference, in accordance with this handbook's purpose. With brevity a major consideration, extended examples of particular concepts are located in the Appendix which begins on page 23.

II. CONCEPTUALIZATION

INTRODUCTION

Conceptualization is the first step in the process of developing and implementing a new educational program. It consists of recognizing and defining an unmet need or a problem. At this stage, the ADE staff becomes aware of the need and begins to formulate ways to deal with it.

DISCOVERING THE PROBLEM

The existence of an unmet need or problem can come to the attention of the ADE staff in a number of ways. Some of these ways, along with examples of needs discovered, are:

Educational Community	–	Third grade proficiency testing Student academic deficiency
Education Trend	–	Back-to-Basics
Legislative Mandate	–	Career Education Free Enterprise Courses Reading Proficiency CUES
Needs Assessment	–	Appraisal of Future Educational Trends
Socio-Economic Trend	–	Affirmative Action
ADE Staff Appraisal	–	Individualized Instruction in Textiles and Clothing Centralized Information Center for Children with Special Needs (CHILD FIND)

PROBLEM DEFINITION

Once a need is recognized, the ADE staff further defines it. They consider a number of questions, such as:

What precisely is the problem?

- curriculum
- instructional methods
- materials/equipment
- academic training
- morale
- public relations
- skills (e.g., A-V)

How can ADE help?

- design and write curriculum, activities, guides
- explore availability of funding
- publicize existing programs
- provide in-service

	Is a new approach called for, or can existing program be expanded or altered to meet the new need? Suitable long- and short-range goals can be determined only after the problem is defined.
Examples of ADE Defined Problems	(1) In 1971, in accordance with a legislative mandate, teachers were assigned to teach a course entitled "Essentials and Benefits of Free Enterprise". Many teachers were not prepared to assume the assignment. A syllabus containing 22 concepts along with bibliographies of texts and supplementary materials were provided by ADE. A need existed for specific ways of assisting teachers in curriculum implementation. (2) During the summer of 1976, the Special Education Division was moving ahead on CHILD FIND. This program developed in response to the need for a centralized clearinghouse for information on special education for children in Arizona from preschool to adulthood. Previously, parents of such children had great difficulty locating appropriate programs. Additionally, the special needs of the children themselves were not recognized in early stages.
IDEA GENERATION	At this point, the brainstorming begins. A facilitator needs to be appointed to organize and lead discussion groups. All divisions of ADE should be utilized. When possible, the person who discerned the unmet need should be involved in the exploration of viable concepts for development. Discussion sessions could include other professionals at ADE, parents, students, members of the community, and area specialists in the subject. If possible, those who originally identified the unmet need should be included in the idea generation process. In addition to generating ideas for meeting the need, a broad base of support is established for the future program. Appendix A, page 24, details various methods of conducting group discussions.
FEEDBACK	A necessary part of the idea generation process is feedback. Feedback is sharing the ideas gained with those who originally discerned the unmet need, in order to insure that the problem has been defined correctly and that all aspects of it have been considered. In addition, the proposed approaches to the problem should be presented to a project selection group or task force consisting of representatives from key operating areas of ADE (at a minimum, one from each division) to focus opinion and support (or lack of it) from each of the areas concerned. This phase starts cementing administrative support – vital to the success of any project.
DECISION POINT	The gradual evolution from recognition of unmet need through idea generation results in acceptance of the validity of the problem by administration and the propriety of

Departmental involvement. In other words, the internalization process has begun. Preliminary budgets may be constructed at this point. Cost often becomes a factor in determining the method(s) for dealing with unmet needs. In addition, securing the funding for programs can take quite a bit of time. To formalize internalization, a decision must be reached; ADE involvement must be accepted and approval must be obtained at the Superintendent or Deputy Superintendent level for further planning and development, and appropriate funding.

SUMMARY

In the conceptualization phase, ADE staff members become aware of a need, select a facilitator, define the problem, brainstorm various ways of meeting the need, set proposed goals, get feedback from a cross section of staff and community, and reach a decision point. Once the "go ahead" is obtained from administration, planning (Section III) can begin.

III. PLANNING

INTRODUCTION

The planning phase continues the internalization process begun in the conceptualization phase (Section II), and provides organization for the proposed program. It involves two closely interwoven themes – planning for program development and planning the marketing program. Since these two plans are developed in tandem, they are examined together in the following subsections. The planning process – for both program development and the market program – becomes increasingly specific; from information gathering, through setting objectives, strategies, and action programs, to developing a timeline and finalizing a budget. With the last step, preparation of a written summary, the planning phase blends smoothly into the development phase (Section IV).

CHOOSING THE TEAM

Pull together a concerned nucleus of ADE staff members to plan the program. These people should be firmly committed to the program and will probably have been involved in the conceptualization phase. If possible, their immediate supervisors should allot a fixed percentage (e.g., 10%) of their time to planning the new program. At this point a tentative project director – or team leader – should also be chosen.

INFORMATION GATHERING

The next major step in planning is information gathering. Most often, ADE staff will not have the necessary information for program development and marketing at its disposal and will have to search for it. Four fundamental areas of information needed are: general program research, market research, resource factors, and external factors.

General Program Research

The primary reason for searching all available sources having potentially relevant information to the proposed program is to avoid "reinventing the wheel". Some questions to ask are:

What have other states done about this problem?

How have Arizona schools handled it?

Have other programs developed by ADE or other organizations dealt with this or similar topics?

Example

Preliminary research for the Gaining Interest in Economics Project uncovered the Consultant Cadre, the Nebraska Economics Curriculum Guide, numerous publications from business and industry, and information on national economic education objectives. All of this information was utilized to some extent in the preparation of the final product.

Market Research

Through market research, the potential consumers (users) of the product or program are determined. The type of market will naturally define acceptable programs. Thus, while students are frequently the eventual audience for ADE programs, important intermediate markets may be teachers and parents. The following is a list of major considerations for defining the market.

Consumers – Define as precisely as possible the characteristics of the individuals whom you expect to reach with the program. Attempt to consider all potential groups involved (e.g., teachers, students, principals, district administrators).

Location of market – Is the program to be implemented statewide or is the emphasis on larger schools only, rural schools, Indian reservation schools? This information will be necessary for determining servicing and distribution systems.

ADE standing in the market – Does ADE have established ties with the market (e.g., as with the Right to Read Director for individual school districts) or must new ties be established (e.g., through publicity, as for CHILD FIND).

Seasonal patterns – The school year pattern of semesters and set vacations has a definite impact on program introduction.

Consumer resistance – Ask the question, "Will some consumers resist the new program and its methods?" If potential resistance exists, attempt to determine how it can be overcome. (When the textiles individualized instruction program faced this problem, ADE Vocational Education staff dealt with one aspect of it by convincing teacher educators to incorporate the new teaching method into university classes. This early introduction of the method to future teachers helped ease individualized textile instruction into the public schools.)

Past successes/failures – Check for previous experience with a similar type of program to get an idea of the important aspects leading to its successful and unsuccessful components. If evaluation reports are available, they should be consulted for this purpose.

Indirect competition – Is part of the proposed program contained in another program? For example, consumerism can be taught in a number of subject areas – business education, social studies, home economics. If all of the teachers involved present much

the same unit (or similar units at the same time), student interest will be lost, as will ADE credibility to teachers.

Promotional opportunities – These may affect the timing and method of introduction of the program. For example, semiannual teachers' conferences and the Education Fair may be excellent places to introduce new programs.

Market segmentation – A consumer subgroup may differ significantly in terms of some important characteristic. Obviously, programs emphasizing reading must take bilingual children into account. Somewhat less obviously, programs based on a particular subject area may utilize examples drawn from middle-class values and experiences to illustrate activities and curriculum. Other subgroups need consideration also (e.g., handicapped, minority, Indian).

Distribution channels – Identify as precisely as possible the potential networks for distribution of the final product. For example, a pamphlet on safety in metalworking shops may be mailed to all industrial arts teachers. However, an energy handbook might better be personally delivered to science classes by ADE staff who would conduct a class in cooperation with the teacher to illustrate the use of a potentially complex concept.

Resource Factors

The third type of information required involves identifying the resources available to develop and implement the program. To accomplish the task, review ADE's own capabilities and talents. Consider ADE policy for staff time for supplemental projects, and determine what resources the Department can put at the disposal of the program. Consider the following points in particular:

Money – Funding sources and procedures

Manpower – Managerial (program direction and administration from within ADE)

Professional (subject area expertise within and outside ADE)

Technical (graphic arts, visual aids)

Time – Does the ADE staff have sufficient time to take on this project and handle its ongoing duties? Should all or part of the program be let out for bid?

Production – What types of materials can ADE produce in-house?

Closely allied to resource identification is identification of support levels – is every division committed to the successful completion of the program? If not, decisions have to be made regarding the impact upon the program of a lack of commitment and if, and how, such commitment can be obtained.

External Factors

The fourth type of information necessary to obtain and evaluate critically and objectively relates to factors outside ADE control. Some which may influence the development, conduct and outcome of the program are:

Social Sensitivity – In Arizona, conservative community attitudes may undermine an educational program if it is perceived as too liberal.

Public Opinion – A good program may be unsuitable because the timing is not right. (For instance, innovative science curricula existed in the 1950's, but they did not come into vogue until after Sputnik.)

Safety Considerations – Experimental rocketry may be great for secondary schools, but too great a risk for primary school-aged children.

State of the Economy – Enrichment activities in a good economy become frills in a recession.

SETTING OBJECTIVES

After the basic planning information needs are fulfilled, specific program objectives must be formulated. Objectives are statements of specific activities which must be achieved in order to assure the growth and success of the previously determined goal(s). Objectives define how the overall program goals are fulfilled via concrete activities. Ideally, objectives are written for both the program and marketing plans. They should have the following characteristics:

Feasibility – Can the objective be attained?

Economic suitability – Is the cost worth the reward?

Pragmatism – Does the objective have practical value?

Measurability – How can ADE tell when the objective is successfully met or not?

Flexibility – Can the objective be adapted to changing circumstances?

Examples of Objectives

Suppose the program goal is to increase safety awareness in secondary school metalworking shops. Program objectives might be: (1) to make sure that 75% of metalworking

students are able to pass a test on basic power tool safety, or (2) to have materials and literature on safety available in 90% of the state's metalworking classes, or (3) to reduce the number of metalworking shop accidents by 20% within a year. Marketing objectives might be: (1) to overcome possible teacher resistance by proper product presentation and (2) to have a 90% teacher participation rate in the safety program.

STRATEGIES

After the program objectives are developed, the planners should turn their attention to developing strategies to accomplish the objectives. Strategies consist of the specific steps which must be taken to accomplish objectives. Thus, every objective must be supported by one or more carefully chosen strategies. For example, the development of hydroponic greenhouses in a Sells, Arizona, high school was a good strategy for introducing students to innovative agricultural methods.

Assumptions

Before strategies can be constructed, the assumptions used in planning the program must be made explicit. The identification of underlying assumptions is a key factor. Because of the importance of their identification, the assumptions should be written down and information obtained on them to insure that they are correct. Erroneous assumptions can sabotage an otherwise well conceived program.

Examples of Assumptions

A basic assumption of the Gaining Interest in Economics Project was that teacher-users had no formal economic training; activities for the kits were written specifically for this level of assumed knowledge. An informal survey of teachers involved in the project and of ADE staff members indicated that this was a reasonable assumption.

Other possible implicit assumptions which may require further exploration are: (1) the ADE print shop can be given a job and complete it within 48 hours; (2) there are no constraints on how money is spent out of a budget; (3) school districts will be delighted to lend staff time to an ADE project; or (4) schools have the necessary equipment for building kilns for an arts-in-the-school project.

Strategy Example

The program and marketing strategies for the Gaining Interest in Economics Project are closely allied. The program strategy (to meet the objective of increasing awareness of economic terms and concepts in grades K-12) was to develop kits, one for each of four grade levels (primary, intermediate, junior high, and high school). Each kit was to contain brief activities spotlighting an economic concept, a teacher's manual to explain the concepts further, and selected pieces of media. The marketing strategy consisted of attempting to make the kits easy to use and interesting for teachers – thus the activity

descriptions were on index cards attached by a ring (for easy use and sharing with other teachers); cartoons were sprinkled throughout to pique interest; and, suggestions were made for incorporation of the activities into established curricula.

ACTION PROGRAMS

With the development of action programs, the planning phase takes a very specific turn. At this point, an action program is mapped out which gives the details necessary to accomplish the strategies. Thus, in the action program plan all of the information developed throughout previous planning is utilized to state the specific actions to be performed, how they will be performed, the date of their accomplishment, and the person(s) responsible for accomplishing them. Considerations for action program planning include:

ADE Staff Commitment – Specific staff members are selected and time commitments outlined.

Professional expertise – areas of professional expertise are determined, means of contacting consultants are outlined, consultant time commitment is determined.

Supplies needed – which types, comparative costs, how and from which vendor to order them.

Action Program Example

Upon request, the SELECT Program plans and teaches mini-courses to teachers, parents and members of the community who have an interest in children with special learning needs. Suppose the strategy is to conduct a training session for skills in teaching physically handicapped children. In the action program, the details of how to set up the course are developed, feasible dates and times for the class are set up, press releases and advertising to inform potential participants are planned, and the best teacher(s) for the class is considered.

ILLUSTRATION

See Appendix Exhibit B, page 29, for an illustration of the interdependence of objectives, strategies, and action programs as they might apply to a phase of a hypothetical energy education program. Note that for every objective there is at least one strategy and that for every strategy there is at least one action program.

PERT CHART

With the details of the action plan specified, it should be finalized into an organized chart for easy visual access. The use of simple time tabling techniques for developing and introducing a new program are usually unsatisfactory, largely because of the interdependence of the various elements. For most programs, a proven method is the use of a network analysis technique. Often called a PERT Chart (Program

Evaluation Review Technique), the concept is to sequence the detailed elements of a program in terms of the various steps that have to be accomplished as a series of consecutive, parallel and interconnected paths.

PERT Chart Example

Appendix Exhibit C, page 30, illustrates a PERT Chart. This particular example shows the steps which must be accomplished as the pretested and revised Gaining Interest in Economics kits go into full-scale production, preparatory to "launch" (introduction to schools on a statewide basis). Note that specific time units (e.g., weeks, months) are to be indicated at the bottom of the chart.

BUDGET

With the development of the action program, the finalization of a detailed budget is the last step in the planning process. Costs to be considered and accounted for include those for:

Participants – ADE staff and/or consultants.

Materials – for workshops, handouts, mailings.

Facilities – for workshops, meetings.

Equipment purchases/maintenance – e.g., videotape equipment.

Clerical support and supplies.

Overhead – fringe benefits, utilities, accounting costs (especially important if the funding is run outside of ADE, through ASU for example).

Data processing – if this is not included in overhead as a fixed cost, be careful to *over*estimate time and cost.

Miscellaneous – travel, per diem, substitute costs for teacher participants, etc.

WRITTEN SUMMARY

Once the planning phase is completed, a detailed written summary of the program should be developed for review by the program director and top level administration. Upon final approval, it should be the guideline for program operation. In this capacity it will represent the formal understanding of program requirements by the program staff and other support levels of ADE. As such it will later be utilized by evaluators to judge program success. The summary could be organized according to these topics:

Review and analysis – indicate the content, scope and organization to be used, as well as the overall goals.

Planning assumptions.

Development of the product plan – formalize the objectives, strategies, and action programs.

Development of the marketing plan – formalize the objectives, strategies, and action programs (see Appendix D, page 31, for a market plan format).

PERT Chart – present the integrated timeline for both product and market development.

Budget.

ADVISORY COUNCIL

Now that the planning process is completed, choose an appropriate advisory council of persons outside ADE (a list of groups to be represented can be obtained through the Superintendent's office). Plan and hold an advisory council meeting or workshop at which the new program will be discussed. At this early stage of the program's development, it will be easy to incorporate worthwhile advisory council input.

IV. DEVELOPMENT

INTRODUCTION

With the assignment of specific milestones for the completion of the program and the development of a budget, the program moves into the development phase. The major objective of this phase is to develop a prototype and marketing program suitable for piloting. In other words, in the program development phase the program planners get down to the nuts and bolts of building a working program or product based on the preceding planning (Appendix E, page 32, offers an annotated bibliography for further reference).

PULL TEAM TOGETHER

The first step in program development normally involves selecting the development team. If outside consultants are necessary, they are hired at this point.

Management Strategies

Several key management techniques should be followed closely. Successful programs typically follow these "rules":

(1) Delegate responsibility and authority for individual subprogram components to individual team members. Each milestone developed in the PERT chart should have someone responsible for its completion.

(2) Monitor progress closely to insure that the timeline on the PERT chart is being met. Flexibility will be required, however, when the inevitable setbacks occur.

(3) Encourage and develop informal communications between the various team components (e.g., marketing developers and program developers).

PROTOTYPE DEVELOPMENT

The prototype is the actual book, packet or materials to be designed for the program. Obviously, prototypes vary widely from program to program. It may be as simple as a small booklet or as elaborate as the series of activity cards, media samples, handbook, and carrying case of the Gaining Interest in Economics kits. Despite the large variation in prototypes, a rough sequence may be outlined.

Develop content – actually write the booklet or activity cards.

Develop servicing plan – write materials for workshops, mailings or updates.

Determine optional materials – if supporting media are suggested, write for information, make lists of titles and distributors, review films and filmstrips, and get copyright releases.

Develop packaging – this can be the cover of a manual, a box for a set of activities, a carrying case for a set

of materials. A number of factors should be considered. See Appendix Exhibit F, page 34, for some of these factors.

DEVELOPMENT OF MARKETING PLAN

Naturally, marketing concepts have played an important part all along – from the conceptualization phase through prototype development. Consideration of attractive packaging, ease of use, and consumer need fulfillment are applications of marketing principles to product development. In the marketing development phase, however, the emphasis is on program introduction. The degree to which the program can be satisfactorily introduced, disseminated and promoted early in its life may well govern its ultimate success. Two basic promotional techniques which may be effectively utilized for educational programs are mass communications techniques and direct contact.

Mass Communications

Some programs require widely and effectively spread information for success. CHILD FIND is an excellent example of such a program. In general, programs which provide service for users who are not a part of the educational structure (e.g., members of the community) need broader dissemination. When feedback from the public is expected or phone numbers are given for further information, a public response team should be trained. A response team insures that positive feedback is provided to the interested public and serves as a centralized source of information for the press. Methods to consider are:

Publicity – press releases, press conferences.

Local TV programs – Public Memo, Face the State.

Space Advertising

Direct Mail – requires a mailing list (e.g., parents of elementary-aged children might be a reasonable group for SELECT).

Program literature – left in administration buildings, teachers' lounges.

Exhibits and demonstrations – Education Fair.

Special Events – Appendix G, page 35, provides a conference planning checklist.

Samples – introductory copies of portions of curriculum guides.

Others – bumper stickers, radio public service announcements, and flyers.

Direct Contact	Generally the ultimate consumer in the educational environment is the student. In order to reach the student, direct contact must be developed with the teacher and administrator. Approaches to consider are: Mailings – ALERT, Consultant Cadre announcements in the Arizona English Teachers Newsletter. Lectures – to interested civic or professional groups or university education classes. Demonstrations On-site visits
DISSEMINATION	The final component of developing the program consists of setting up distribution channels for dissemination of the program materials, both for the pilot and implementation phases.
Dissemination Examples	These channels might be the Right to Read Area Coordinators for reading materials; school district subject area coordinators for specialized materials; subject area or grade level teachers for other types of products; or simply to requesting teachers, administrators, and parents.
ADVISORY COUNCIL	Convene your advisory council again to show them the program materials (prototype) and to bring them up to date on plans for piloting and implementation. The council can provide useful feedback on possible public response to the prototype, and can give useful advice on promotion and distribution channels.

V. PILOTING

INTRODUCTION

After the prototype and marketing strategies have been developed, they must be evaluated to "shake out bugs" and determine the appropriateness of each. (Appendix H, page 41, provides the objectives for piloting the Gaining Interest in Economics kits). This section will outline the steps involved in piloting both the prototype and the marketing plan.

PILOT METHODS

The pilot must be appropriate to the scale of the program and to its degree of "newness." If the project represents a radical departure from past history, or if it is significantly more ambitious than previous programs, it will require more extensive piloting. The method selected may range from an informal evaluation by other members of the ADE staff or school administrators to a full scale pilot study in selected schools throughout the state. The more closely the test group resembles the target market (for whom the program was designed), the more valid the results will be.

Examples

(1) Suppose the Vocational Education staff has written a short pamphlet on safety in high school woodworking shops. It is to be distributed to students enrolled in such courses throughout the State. Piloting for this pamphlet might involve having some Phoenix area industrial arts students and teachers read the booklet and complete a short questionnaire giving their reactions. The questionnaire results would then be used to revise the pamphlet prior to its distribution. On the other hand, if the students' reaction is that this is the fifth safety pamphlet they've run across in the semester, the staff would do well to reconsider the program itself. (Hopefully, however, in the preliminary research phase such information would have been obtained.) In addition, if the pamphlet target market includes special subgroups (e.g., handicapped students) they must be included in the pilot.

(2) A more ambitious program, such as the development of a new energy education curriculum package, would require more extensive piloting. Because the formal teaching of the topic area is unfamiliar to students and teachers alike, all written materials should be tested. In addition, the possible utilization of in-service training and the continuing back-up assistance from educators (ADE) and professionals in the energy field should be carefully evaluated in the pilot study. An example of this type of piloting is that being undertaken for the Gaining Interest in Economics program.

PILOT GROUP SELECTION

After the pilot strategy is selected, an appropriate test group must be chosen. The group should represent the target market as closely as possible. At this point, consider again the reasons for pretesting. If the project is essentially ready for dissemination, a random sample may be selected from the

target market. If the program needs shaking down more than impartial evaluation, it might be best to deliberately bias the test group in favor of those who are interested enough in the program to help revise it. In this latter case, special care must be taken when interpreting the pilot results. If the pilot went well (e.g., the introductory workshop took two instead of four hours, or everyone loved the program), the good results may be due to the participants and may not be generally applicable to the entire market group.

IMPLEMENTATION

The same management and organizational skills stressed in the development section are important here. One person should be in charge of the piloting. Workshops, training sessions, hotline telephone numbers, necessary media must all be arranged ahead of time for a smoothly run pilot. Again, be sure as many ADE staff members as possible are included; this will give each area/division a chance to be sure that its part in the program will go well. The public relations aspect must not be overlooked either. The pilot audience, if handled properly, may turn out to be dependable supporters of the program.

FEEDBACK

This is the most crucial part of the pilot. It is important to carefully design the feedback method to ensure that the responses are meaningful and usable. In addition to informal discussions between ADE program coordinators and pilot participants, a written form with both open-ended and structured questions should be utilized. (See Appendix I, page 42, for the evaluation form for Gaining Interest in Economics.) Structured questions require the development of some type of scale. For evaluation items such as "rate the enrichment activities on their clarity," the scale might consist of 1 = very clear through 5 = very unclear. Some examples of open-ended questions are:

Are the materials easily readable?

Are the instructions clear?

How could you, as a teacher, implement this activity into your classroom?

Should the materials be disseminated through your principal? School district superintendent's office?

REVISION

Use the feedback to review and revise the program preparatory to the implementation phase (Section VI). Alter the marketing plan in line with feedback responses (e.g., if teachers say they have been exposed to too much on-site in-servicing, consider a workshop in one central location for all participants).

VI. IMPLEMENTING

INTRODUCTION

The program has been debugged and is ready for the implementation phase. Based on the completion and evaluation of the planning, development and piloting phases, you are ready to go!

IMPLEMENTATION PHASES

Major phases in the implementation of the revised programs and marketing plan are:

Review staff needs – Implementation may require more time or additional special skills than can be provided by ADE staff. Consider augmenting the ADE team with outside members, such as school district personnel, teachers, technical assistants, professional consultants.

Training – Based on the method chosen for communication, develop staff to conduct in-servicing (e.g., workshops, on-site visits). In-service techniques are reviewed in Appendix A, page 24.

Production – Production of the prototype/model should be contracted (whether using in-house or outside facilities).

Dissemination – Materials produced from the prototype are disseminated by means of the distribution channels identified in the planning phase.

Public communication – Publicity for the project is handled along the lines indicated for mass communication and direct contact.

Feedback – This process works two ways. Consumers (e.g., teachers) provide feedback to ADE. Subsequently, ADE provides consumers with feedback on correct use of the program, enrichment activities, and other consumers' ideas for improvement. The Consultant Cadre, in its role of providing consultative services, could be used to assist teachers in problem areas of implementation (see Appendix J, page 43, for an explanation of its operation).

VII. REVIEW AND FEEDBACK

INTRODUCTION

Throughout the course of a new educational program, monitoring is required to ensure that it is functioning as anticipated. Such monitoring usually is labeled evaluation research and is required to some degree in all experimental programs. A number of alternative schemas have been developed which depict the various types of evaluation activities. Three of the types are administrative, outcome, and process evaluations. Because numerous source books exist on evaluation research, these will only be briefly described. Appendix Exhibit I, page 42, presents a short bibliography of some of the source books.

ADMINISTRATIVE EVALUATION

In an administrative evaluation, researchers investigate the extent to which the program is run in accordance with its original objectives and guidelines. In the most general sense the monitoring consists of determining exactly what was done and how well it was done.

OUTCOME EVALUATION

While the administrative evaluation is analogous to determining how many times a bird has flapped its wings, the outcome evaluation attempts to determine how far and fast it has flown. In other words, outcome evaluations utilize scientific research designs to measure the effectiveness of the program.

PROCESS EVALUATION

The process evaluation attempts to determine why a program did or did not work. The scope of such an investigation can cover the nature of the program itself, its method of administration, the characteristics of its recipients, the presence or absence of open communications, the situational context of the program, and other important variables.

OTHER TYPES

Other types of evaluations may focus on the program's efficiency, cost effectiveness, and adequacy in relation to other similar programs. The specific types of evaluations selected for use depend upon the program's size and cost, and on the extent to which it utilizes experimental concepts. The most important point is that as a general rule, all programs costing over $5,000 require some sort of evaluation to give administrators feedback on whether they should be continued in their present form or not.

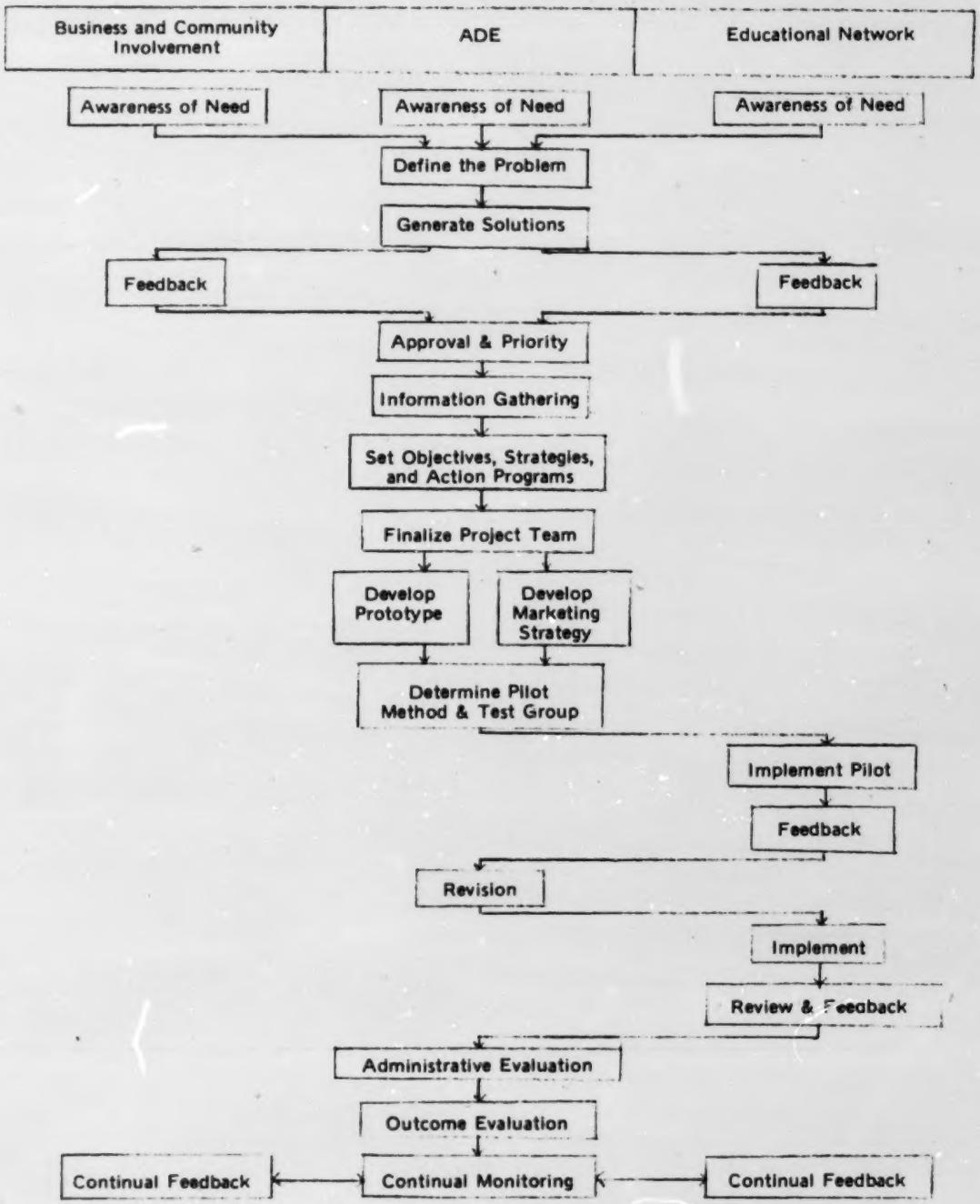
CONTINUING SERVICES

Once the program is successfully launched and has been evaluated – don't just drop it. The continuing success of the program depends on ADE support. One person in ADE should remain responsible for the program and see to its updating, revision, and ongoing distribution. The staff member may want to hold workshops each September to acquaint new teachers with the program, see that materials are on display at education fairs, and so on. Additionally, the staff member in

charge will want to hold one more advisory council meeting to bring members up to date on the status of the program and to emphasize their role in its success.

VIII. SUMMARY FLOWCHART

The following flowchart summarizes the involvement of business and the community, the Department of Education, and the educational network ADE serves. In addition, Appendix L, page 45, offers a checklist for launching new educational concepts.



APPENDIX EXHIBITS A–L

APPENDIX A: IN-SERVICE TECHNIQUES

INTRODUCTION

The purpose of this appendix is to provide the reader with information on the use and operation of various group designs for in-service training. The selection of an appropriate group design for the purpose and resources at hand is vital to the successful achievement of the group's goals. A major quality of a skilled group leader/facilitator is the ability to select an appropriate design, and effectively implement its use.

Most groups are formed to either gather data and solve problems, or disseminate information. Descriptions of group designs for both purposes are provided here. There are no rigid rules, flexibility is the key.

LEADER/ FACILITATOR

In any group design, the leader/facilitator has the following responsibilities:

1. Plan carefully ahead of meeting,
2. Introduce problem or define the task clearly,
3. Outline major phases; suggest procedures; ask approval or modification from group,
4. Explain format of group method and why used so participants know what is expected,
5. Impress upon group the seriousness of task,
6. Keep discussion on target except when group accepts the deviation,
7. Urge nonparticipants to give their ideas,
8. Refrain from making speeches or taking sides,
9. Summarize wherever necessary; restate other's ideas; use recorder when necessary,
10. Suggest "next step" at end.

PARTICIPANTS

Participants also have responsibilities. They should:

1. Communicate concerns;
2. Participate;
3. Prepare, if necessary;
4. Expect to gain new ideas;

5. Cooperate in trying out new ideas, before accepting or rejecting them;

6. Evaluate existing practices and new ideas in continuing attempt to improve.

DATA GATHERING AND PROBLEM-SOLVING GROUP DESIGNS

The general intent of these groups are to share information, analyze alternatives, develop understanding of complex problems, and arrive at carefully considered decisions. The participants should have an interest in the problem, a need to discuss the problem, and have pertinent information to offer.

Brainstorming

Brainstorming generally has one narrow purpose: to allow ideas to surface. The rules are sometimes posted for all to see and should include the following:

1. All ideas related to the topic in any direct way are desired.

2. A maximum number of related ideas is desired.

3. One idea may be modified or adapted and expressed as another idea.

4. Ideas should be expressed as clearly and concisely as possible.

5. No discussion and no criticism of ideas should be attempted.

The leader records ideas as they are presented. Depending on the size of the group, more leaders may be used to receive ideas at the same time and to record them. As an additional part of the meeting design the leader can break and return to a discussion format.

Goal Analysis Group

The goal analysis group is used to determine training or program outcomes (behavioral objectives) or to determine Management-By-Objectives. Brainstorming guidelines are used to generate a list of behaviors which would be performed by or observed in persons who represent the goal. Then the group reviews and revises the ideas generated by testing with the question: "If someone achieved or demonstrated each of these performances would I be willing to say he/she achieved the goal?"

Round Robin Discussion

The round robin discussion is much like brainstorming, however, it works best with those who tend to hold back in other types of meetings. The leader begins by identifying and clarifying the task at hand and asks the person to his/her left to respond. The discussion continues clockwise. The leader

	elicits additional comments and summarizes (or asks two others to summarize). The leader suggests the next step or use of the data gathered.
Nominal Group	In the nominal group, the group silently lists ideas on cards. The ideas are transferred to a flipchart and discussed. If a common decision is to be reached, the group can vote and rank the ideas. Further discussion and re-ranking may be necessary. The leader tabulates the findings.
Buzz Group	Buzz sessions generally focus on a specific topic to promote verbal interaction. If it is a large group, break up into groups of 3-9. One aspect of a problem may be assigned to each group, or all groups could have the same task. Time limits are usually 5-20 minutes. These sessions are used to (1) pool ideas from a large group, (2) create a change of pace in a multi-session meeting, (3) create the idea content of a speech, (4) get the needs and interests of attendees, (5) get ideas from persons who do not speak up in other groups, (6) use as preparation for a larger meeting, or (7) use as an evaluation device. Recorders of each group will summarize for the entire group. The leader will summarize with emphasis on how reports will be used or how this session fits into the next.
Delphi Group	The delphi group is used for forecasting future events, needs, problems, or planning. Questionnaires with instructions to participants are used. The response to the first questionnaire is returned and the leader tabulates and summarizes the results. The group receives the results and the second questionnaire. They may reexamine their original opinions in light of materials received and either issue a revised opinion or an explanation defending their stance. The leader decides whether or not another round would be productive, and finds conclusions and recommendations derived from findings of the questionnaire.
INFORMATION DISSEMINATION GROUP DESIGNS	The effectiveness of information dissemination depends on the need of the participants for the information, the quality of preparation given to a topic, and the selection of adequate resources for the task. Meetings are not held for their own sake, but rather to impart information and achieve objectives pre-identified by the group leader or by data-gathering groups.
Workshop	A workshop provides the opportunity for participants to actively interact with training materials; it is particularly useful for skill development. The leader introduces the workshop and describes the areas of interest. The speakers describe their section of the workshop and each attendee picks an area of interest to explore. In each subgroup, the speaker may utilize the group design he/she feels is appropriate.

Discussion	Discussions are most effective with groups of 5-10 people. Ideas should be recorded. A resource person may be available to aid the group, however, he/she doesn't participate unless asked. The leader has the responsibilities enumerated on the first page of this appendix.
Dialog Discussion	The dialog discussion is organized like the discussion group discussed above. However, the resource person is used for a brief presentation before the discussion. This design is effective for presenting two opposing views and to stimulate a general discussion following a presentation.
Panel	The forum is used to amplify ideas from a preceding presentation. Resource persons direct their comments toward the concerns or information areas identified by a previous data-gathering group. The leader moderately encourages sharing of opinions, and watches for domination.
Listener-Controlled Speech	The listener-controlled speech permits attendees to state their needs and interests to a resource person who can then incorporate the attendee's needs into his/her speech. To begin, the group breaks into subgroups of three to five persons. Each group generates and prioritizes topics of interest. The leader collects and sorts the topics into general interest areas. The resource person then outlines the speech and directs it along the lines requested.
Teaching Assignment	The teaching assignment provides learning activities for group members with emphasis on exposition of information. It is best used in a series of ongoing sessions. The leader assigns topics for research to a group's member who subsequently presents the topic to the group. The leader elicits group reactions and additions to the data presented. A summary should include how the information is to be used.
Symposium	A symposium is used to provide a systematic presentation on noncontroversial information on a single subject by two or more speakers. A question and answer period should follow the presentation or the group could break into discussion groups. Another method of summarizing may be to have each speaker ask a few questions of every other speaker.
Interview	An interview can improve results of presentation by a speaker who is not as effective in direct lecture. The leader directs questions to the speaker. After the response the leader may summarize the comments or ask for clarification of incomplete responses. The group may be asked to make notes of unraised questions or incomplete replies if the session relates to subsequent active group designs.

Listening Subgroups	Listening subgroups are used to intensify the participation of attendees from a medium- or large-size group watching a film, panel, speech, etc. The leader assigns the subgroup listening task. After the presentation, the subgroups buzz on what they heard in response to their specific assignment and prepare a report for the whole group. The leader can summarize or use a presenter to react to the reports.
Demonstration	The demonstration provides a model of specific behavior and helps answer specific questions such as "what do you do if . . . ?" A follow-up activity should be used to allow the observers to review the purposes and check out their perceptions of what they witnessed. Observation of the actual situation is another possibility, particularly for teaching methods. However, with observation the content of the session can not be controlled so the purpose of the session may not be achieved.
Role-Playing	Role-playing is used to assist the participants in acting and feeling as they would in a real situation. Preparation by the leader is crucial to define the roles which the participants will be playing. The participants must understand the roles assigned and adhere to their role. The leader must be sensitive to the needs of the group, and terminate the role-playing before any emotionally embarrassing situation occurs. The session may be followed by a discussion and/or by switching roles.
SUMMARY	Detailed planning is a requirement for any successful group session. The planning for in-service activities follows the same steps identified in this manual: (1) identify needs, (2) establish objectives and strategies, and (3) select the action programs that can be useful in pursuing the objectives.

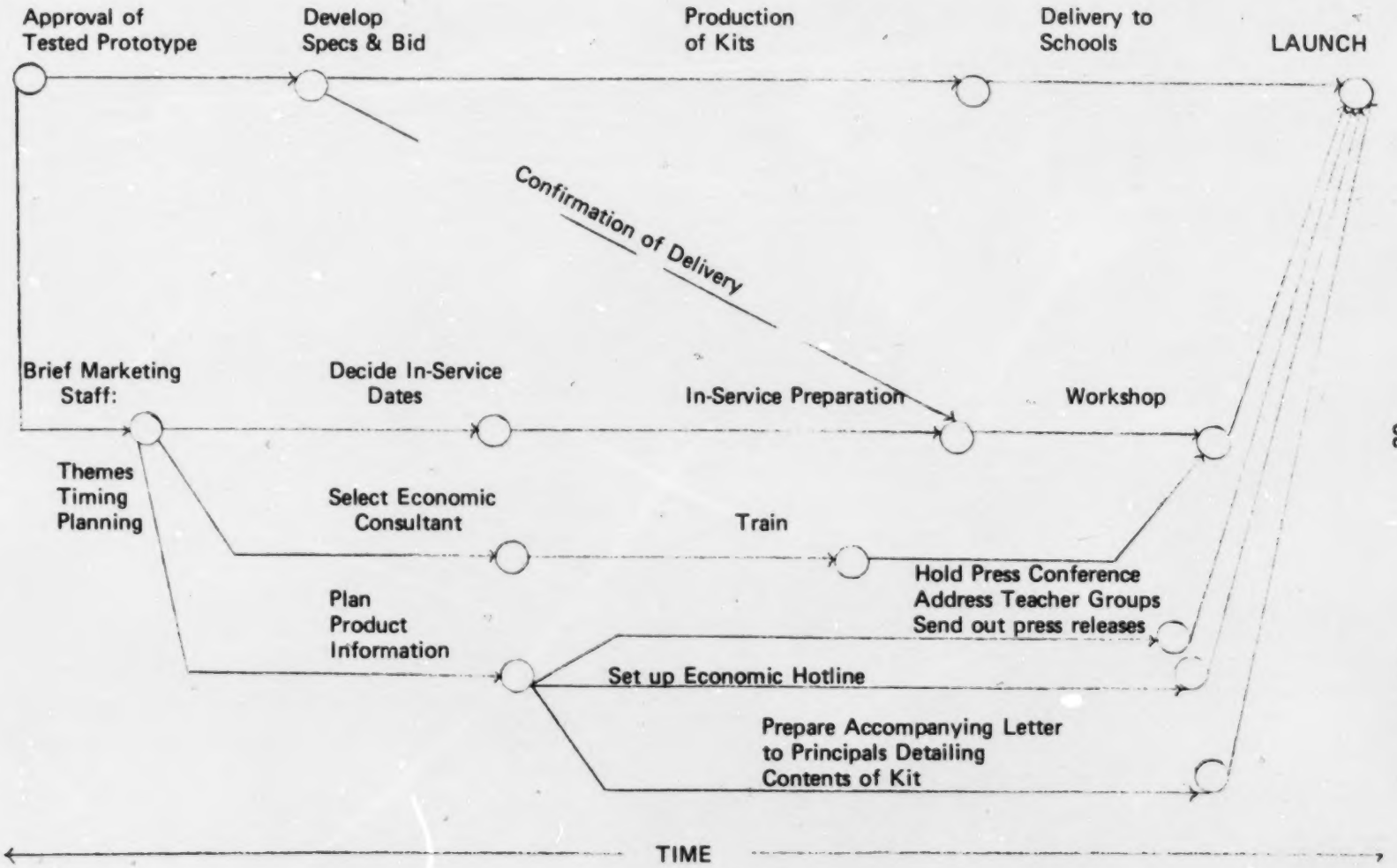
APPENDIX B: EXAMPLE OF OBJECTIVES, STRATEGIES, AND ACTION PROGRAMS

INFORMATION NEEDS: ENERGY HANDBOOK DEVELOPMENT

Purpose: Evaluate External Factors Important to Energy Handbook Development

Objectives	Strategies	Description	Action Programs	
			Person Responsible	Completion Date
I. Determine current trends of energy conservation in Arizona.	a. Search available materials.	1. Go to ASU library and build bibliography on Arizona and energy. 2. Search ADE library.		
	b. Talk to policymakers.	1. Talk to OEPAD, Energy Programs. 2. Talk to legislators in reference to pending energy legislation. 3. Contact Governor's Citizens Energy Task Force.		
	c. Talk to persons in business community.	1. Call utilities. 2. Call service organizations e.g., Electric League, ICOA. 3. Call builders advertising energy-saving homes.		

APPENDIX C: PERT CHART EXAMPLE FOR GAINING INTEREST IN ECONOMICS



APPENDIX D: SUGGESTED FORMAT FOR A MARKET PLAN

The following outline provides a format for writing a market plan.

I. New Education Concept Outlook

   A. Describe how need was identified.

   B. Describe how solution was determined, and the market at which the solution is aimed.

   C. Review information-gathering phase.

   D. Summarize expected impact over the short and long term.

   E. Discuss assumptions made.

II. Objectives of Market Plan for the New Educational Concept

   A. Define and explain objectives.

   B. Discuss assumptions made.

III. Strategies and Action Programs for Marketing Plan Objectives

   (This section could follow the format of Appendix B or be written in outline form.)

IV. PERT Chart or Timeline

V. Budgets

VI. Control and Review Procedures

APPENDIX E: ANNOTATED BIBLIOGRAPHY FOR PRODUCT AND PROGRAM DEVELOPMENT

This bibliography is offered to the reader for further information on promoting and implementing new educational programs. All sources are available at Hayden Library, Arizona State University.

Andrews, Bryan. *Creative Product Development.* New York: Longman, Inc., 1975, 281 pgs.

All phases of new product development are covered. The emphasis is on bringing together several complementary skills e.g., technological, marketing, and administrative. Numerous examples are given throughout the book for each phase of development. The revitalization of existing products or services is considered equally with new concepts.

Aspley J.C. *Aspley on Sales.* Chicago: The Dartnell Corporation. 1967, 334 pgs.

Mr Aspley discusses the creative salesman – a person who sees an opportunity, seizes it, and turns it to effective use. Chapter by chapter he provides examples of creatively overcoming potential problems in making a presentation, interviewing, overcoming objections, and managing your time. The bottom line of each section is his ability to present selling/promoting as the great opportunity to provide service to your public.

Boulder Experiments Scrapbook. Boulder, Colorado: Social Science Education Consortium, Inc., December, 1972, 185 pgs.

This book is included in the marketing bibliography because it provides a step-by-step guide for taking learning out of the classroom and into the community. It is a description of how the student and professional staff of the Student-Assisted Development of Materials for Environmental Social Studies (SADMESS) Project planned and put on a community environmental fair.

Bursk, Edward C. and G. Scott Hutchinson. *Salesmanship and Sales Force Management.* Cambridge, Massachusetts: Harvard University Press, 1971, 191 pgs.

The authors have selected ninteeen *Harvard Business Review* articles to provide a well-rounded picture of the theories, studies, and techniques for salesmen and sales managers to use to improve themselves. Sales training is covered in a manner pertinent to in-service training. The last section of the book discusses the behavior approach to promotion – how to identify and develop new markets.

Constantin, James A., Rodney E. Evans, and Malcolm L. Morris. *Marketing Strategy and Management.* Dallas, Texas: Business Publications, Inc., 1976, 524 pgs.

This source is offered for a basic marketing text. It pulls together and defines all phases of marketing. Although business-oriented, all marketing concepts are applicable to education. As more companies are becoming marketing-oriented, so also should public service entities. The excitement comes from using the concepts of marketing to satisfy wants and needs of the public.

DeLozier, M. Wayne. *The Marketing Communications Process.* New York: McGraw-Hill Book Co., 1976, 324 pgs.

This book deals with the communications process. A model of the process is defined. Methods for successful communication are given. The role of packaging, physical characteristics of the product, geographical location, advertising, sales, staff, promotion, and publicity are addressed.

Dominguez, George S. *How to be a Successful Product Manager.* Cambridge, Massachusetts: Education for Management, Inc., 1976, 233+ pgs.

This manual is intended as a self-learning course for the new product manager. The last section provides all detail required to write a market plan.

Scheuing, Eberhard E. *New Product Management.* Hinsdale, Illinois: The Dryden Press, 1974, 307 pgs.

The underlying philosophy of this text is that the principal guiding force of all new product management efforts should be a thorough understanding of consumer behavior. In five parts, the book offers a thorough treatment of (1) types of new product strategies; (2) internal evolution of new products; (3) elements of the marketing program; (4) the diffusion of a new idea in its target market, and its acceptance by the specific group of consumers; and (5) discussion of the product life cycle. A six-page checklist for a marketing plan is provided.

White, Roderick. *Consumer Product Development.* London: Longman Group Limited, 1973, 267 pgs.

New product development is treated as an art as well as a science. The book covers the creative process of idea generation, through the steps involved in developing and launching a new product. The first section of the book provides the step-by-step examination of the development process. The second section consists of several studies of product launches and market situations in the United Kingdom.

APPENDIX F: CHECKLIST FOR PACKAGING

Packaging of a new product is an important part of prototype development. Yet it is often left as an afterthought. Remember that the package is the initial exposure to the product. Some considerations in packaging are:

- Size
- Shape
- Contents
- Color
- Opening
- Closing
- Capacity
- Resealing
- Advertising
- Material
- Cost
- Competitiveness
- Instructions
- Durability
- Labeling
- Stability
- Convenience
- Storage
- Recovery
- Filling
- Emptying
- Handling
- Disposability
- Visual Impact
- Quality
- Wrapping
- Protection

APPENDIX G: CONFERENCE PLANNING CHECKLIST*

Conference Title	Coordinator
Conference Date	Coordinator Assistant

I. 12 OR MORE WEEKS PRIOR TO CONFERENCE	Person Responsible	Date Completed
A. Advance Planning Approval		
1. Administrative approval		
2. Finances		
a. Identify financial responsibilities		
b. Estimate costs for speakers, presenters, entertainers, facility, travel, per diem (or food), printing programs, agenda, brochures, signs, other costs.		
c. Identify financial agent to handle registration, etc.		
3. Confirm date(s) of conference		
4. Identify objectives, specifics, needs		
B. Appoint Planning Committee		
C. Select facility (necessary to know one year or more in advance of large conference)		
1. Reserve date and time		
2. Determine required rooms/areas		
a. Presenters/speakers		
b. Storage areas		
c. Steno/clerical room		
d. News rooms		
e. Lobby – registration area		
3. Arrange for meals, coffee breaks, hospitality/cocktail hour		
4. Determine liability insurance needs		
5. Requisition anticipated expenditures (large amounts)		
6. Evaluate parking facilities/costs, convenience		
D. Identify participants		
1. Sponsor		
2. Speaker(s), guests		
3. Cooperating agencies		
4. Target audience		
5. Entertainment/music		
E. Preregistration		
1. Determine need		
2. Identify costs to be included		
3. Set fee/deadline for reservations		
F. Contract		
1. Participants (speakers, entertainment, etc.)		
a. Obtain resume, picture, publicity information		
2. Facility		
3. Requisition costs		

*Accepted at Superintendent's Cabinet Meeting, August 11, 1977.

G. Identify cooperating hotels _____ _____
   1. Obtain special (commercial) rates for out-of-town visitors
   2. Registration cards for mailings

H. Schedule meetings with coordinators/planning committee _____ _____
   1. Report progress
   2. Coordinate "directions"
   3. Disseminate tentative agenda, program

II. 10–12 WEEKS PRIOR TO CONFERENCE

A. Prepare brochure, program agenda _____ _____
   1. Identify Master of Ceremonies
   2. Plan sequence of agenda
   3. Determine locations (rooms) for speakers, program presenters
   4. Identify/notify person for invocation/welcome/Pledge of Allegiance
   5. Indicate schedule/cost of meals

B. Determine need for/prepare evaluation forms _____ _____

C. Notify affiliated organizations/magazines of conference dates for published calendars _____ _____

D. Identify Financial Agent _____ _____
   1. Establish bank account (responsible person(s) for signing)
   2. Set up books for permanent records.

III. 8–10 WEEKS PRIOR TO CONFERENCE

A. Prepare Advance Printing Approval forms _____ _____
   1. Agenda/program
   2. Brochures/publicity
   3. Evaluation forms

B. Identify committee/individual responsible for evaluation, distribution, collection, and compilation of results _____ _____

C. Arrange hospitality tours, gifts, etc. _____ _____
   1. Contact merchandisers for gifts/favors
   2. Arrange tours
      a. Contract with travel agency/bus company
      b. Arrange hotel accommodations
      c. Identify costs – with/without food
   3. Identify host/hostess
      a. Sight-seeing trips
      b. Shopping
      c. For spouse during conference
   4. Plan transportation for guests to/from airport and hotel

D. Determine equipment necessary by speakers/program participants _____ _____
   1. Reserve public address systems, recorders (and tapes), televisions, overhead projectors, projectors, screens, electric cords, double plugs
   2. If conference is out of Phoenix, check availability of necessary equipment

E. Identify/notify audiovisual specialist/photographer _____ _____

F. Plan/schedule publicity _____ _____
   1. Prepare statements for newspapers/media
      a. News releases
      b. Pictures
      c. Include "hometown" newspapers
   2. Arrange interviews/media coverage

G. Mail invitation to participants _____ _____
   1. Brochures
   2. Hotel reservation cards
   3. Special tour/activity arrangement information
   4. Activity planned for spouse
   5. Dress: furnish advance information of weather for comfortable dress
   6. Preregistration information
      a. Request information of telephone number/address of one to notify for emergencies

H. Identify/invite judges, dignitaries _____ _____
   1. Letter describing purpose/activities
   2. Brochure/agenda

IV. 4–6 WEEKS PRIOR TO CONFERENCE

A. Mail publicity to news media (Reference III-F) _____ _____

B. Prepare registration materials (packets) _____ _____
   1. Name tags
   2. Receipts (if preregistered)
   3. Program/agenda
   4. Brochures
   5. Invitations to special events
   6. Evaluation forms
   7. Pads, pencils
   8. Gifts for guests

C. Determine necessity for registering visitors _____ _____

D. Requisition Ribbons _____ _____
   1. Staff
   2. Ushers
   3. Presenters
   4. Special guests/officers/dignitaries
   5. Judges

E. Prepare signs _____ _____
   1. Name plates for head table
   2. Registration
      a. Alphabetical breakdown (for preregistration, receipts, etc.)
   3. Room locations for presentations
   4. Presenter identification (for outside of rooms)
   5. Head table backdrop/logo, promotional information, etc.

F. Finalize facility arrangements,
   1. Meals (breakfast, lunch, dinner banquets, coffee breaks)
      a. Verify dates, times
      b. Location of set-ups
      c. Menu selection
   2. Table arrangements
      a. Number of chairs per table
      b. Head table count/space/location
   3. Number of participants
   4. Verify final costs (to include tax/gratuity)
   5. Identify person responsible for "problems" (such as power failure, faulty equipment, poor acoustics, last-minute demands for electrical cords, plugs, etc.)

G. Identify/notify assisting personnel
   1. Registration assistants
   2. Ushers
   3. Material/equipment placement/transport/return
   4. Secretarial assistants
   5. Drivers for special events (to include transportation to and from airport/hotel)
   6. Men for setting up/disassembling exhibits
   7. "Gopher" to assist coordinator

H. In-service all assisting personnel to specific tasks

V. 2–4 WEEKS PRIOR TO CONFERENCE

A. Check facility
   1. Set-up for presenters (locations of tables/chairs)
   2. Adequate tables (immediate clearing after use)
   3. Location for signs (Refer to IV-E)
   4. Proper/adequate lighting, visibility for presenters and/or speakers
   5. Telephone location/availability
   6. Registration set-up (tables, chairs, etc.)
   7. Storage room for miscellaneous materials/equipment
   8. Conference-associated rooms
      a. President/coordinator office
      b. Clerical work room
      c. News room
   9. Equipment for presenters/speakers
      a. Chalkboard, eraser, chalk
      b. P.A. system (location, plug-in)
      c. Extension cords
   10. Comfort for presenters
      a. Room ventilation, temperature
      b. Rest areas, restroom locations
      c. Glass of water, ash tray
      d. Pad and pen
   11. Nurses facilities (if large conference)
   12. Equipment for steno/clerical assistants
      a. Adequate lighting, ventilation
      b. Tables/chairs
      c. Duplicating facilities (location)
      d. Typewriter, ribbon, paper supply, correction materials – typewriter table

B. Mail second publicity item to media _____ _____

C. Estimate attendance _____ _____

D. Requisition flowers _____ _____

E. Identify person to arrange decorations (table, room) _____ _____

F. Obtain approval (signed memo) for allowable expenses (e.g., luncheon, registration, etc.) for ADE employees _____ _____
   1. Copy to travel clerk with travel claim

VI. IMMEDIATELY PRIOR TO CONFERENCE

A. Registration set-up
   If participants are preregistered _____ _____
   1. Alphabetize packets for easy distribution
   2. Alphabetize receipts for distribution
   3. Alphabetize name tags (if preregistered, or include with packet)
   4. Distribute prepared packets, brochures, and/or agendas
   5. Materials and supplies
      a. Ash trays
      b. Note pads
      c. Felt pens, pencils
      d. Scotch tape/dispenser
      e. Thumb tacks
      f. Money box and change

B. Place/distribute flowers _____ _____

C. Check tables _____ _____
   1. Place name cards
   2. Water
   3. Ash trays

D. Check coffee break arrangements (morning/afternoon) _____ _____
   1. Location of servings
   2. Rolls/donuts – heated, preferably
   3. Napkins, plates, spoons, cups, stirrers
   4. Juice/water/soft drinks/coffee

E. Check equipment for immediate use _____ _____
   1. P.A. system
   2. Plug in/hook up all equipment
   3. Camera/film ready

F. Flags _____ _____

G. Vendor's Certification: must be signed by paid participants for reimbursement/fee (with receipts) _____ _____

VII. POST CONFERENCE

A. Send thank-you letters to participants _____ _____

B. Notes of appreciation of assisting staff members _____ _____

C. Meet with Planning Committee/coordinator for postevaluation of conference _____ _____
   1. Record recommendations for improvements
   2. Prepare conference report

D. Finalize financial records _____ _____
   1. Pay all bills
   2. Recap account/submit

E. Submit invoices for expenses to accountant for payment _____ _____

APPENDIX H: OBJECTIVES OF THE PILOT FOR "GAINING INTEREST IN ECONOMICS"

1. Determine if instructions on the activity cards are sufficient to allow the teacher to implement the activity.

2. Decide if the kit itself is structurally sound enough to withstand repeated usage.

3. Decide if the kit is easy to handle physically.

4. Determine the optimal method for distribution and location of the kits in the schools (e.g., activity cards for each teacher, supplementary materials – one set per school).

5. Determine the types and amounts of in-service required for successful use.

6. Determine whether any materials are needed in addition to those described on the activity card.

7. Determine if the Teachers' Manual Supplement is necessary for each activity.

8. Determine if revision is needed to meet the specific needs of a class.

APPENDIX I: ACTIVITY EVALUATION FORM FOR GAINING INTEREST IN ECONOMICS

This evaluation form is filled out by teachers and reviewed in discussion with the economic consultant, ADE staff, *and the developer. (If an evaluation form is not distributed* personally, it should include detailed instructions.)

Name _____ Grade Level_____

Activity No. _____ Preparation Time _____min.

Date Used _____ Class Time _____min.

Were any materials needed in addition to those described on the activity card? ____Yes ____No. If yes, please list_____

Was the Teachers' Manual Supplement used? ____Yes ____No

Were specific suggested media used? ____Yes ____No

Did you revise the activity significantly in order to meet the needs of your class? ____Yes ____No. If yes, what changes did you make?_____

_____

_____

Was this activity used separately or as part of a unit? ____Separately ____As part of a unit

If the activity was part of a unit, were other activities used? ____Yes ____No. If yes, what other activities? No._____, No._____, No._____

Your overall evaluation of the activity (please circle the response most nearly approximating your reaction).

excellent				very poor
1	2	3	4	5

In general, what is your perception of your students' reaction to this activity (please circle response most nearly approximating your reaction)?

excellent				very poor
1	2	3	4	5

Will you use this activity again next year? ____Yes ____No

Did you use the behavioral objective to test the students? ____Yes ____No

Additional comments (feel free to use back of form or attach additional pages):

ADE 125-300

APPENDIX J: EXPLANATION OF THE OPERATION OF THE ARIZONA CONSULTANT CADRE PROGRAM

At the May 22, 1972 meeting of the State Board of Education, a policy was passed which would commission the State Department of Education to provide consultative services to local school districts in the following manner: (a) educational specialists who are teachers actively involved in Arizona classrooms throughout the State would be utilized, and (b) the subject area specialists would furnish assistance to schools when requested by classroom teachers and be reimbursed for expenses by the Department of Education. Thus was born the Consultant Cadre Program which, briefly, operates as follows:

- Projects may be initiated by a phone call to the Department of Education by a teacher requesting help, or an initial request form may be completed and mailed to the Department of Education. The help then comes through the Consultant Cadre roster of master-teachers and specialists.

- The Consultant Cadre list was developed through a variety of sources. Teachers identified other outstanding "master" teachers; administrators and parents identified outstanding teachers in the field; professional organizations and colleges/universities recommended subject area specialists. The Cadre list will continue to grow as requests and services expand.

- The Consultant Cadre covers the full gamut of curriculum from Administration through Special Education, Arts and Humanities, Math, Guidance and Counseling, Conservation, Health, Methods of Instruction, Preschool, Science, Social Studies, etc.

- Once the nature of the request has been identified, an individual is selected from the Consultant Cadre who can meet the needs of the requester. The prospective consultant is contacted directly to see if he/she would be interested in performing this service. If the person agrees, a letter is then mailed to his/her principal indicating that this teacher has offered service.

- The teacher released for Cadre involvement receives reimbursement for mileage incurred at the current State rate, and is given per diem allowance of $20.00 for expenses. (This does not affect current salary payment from teacher's own district.) If a substitute teacher is requested, this expense is also paid by the Department of Education. An expense form is submitted for these reimbursements. Payment is made directly to the substitute teacher at the rate paid by that local educational agency.

- The school receiving Cadre assistance is requested to complete a Consultant Cadre service individual appraisal form; this form is a feedback to the Department of Education indicating the adequacy of service performed. Therefore, opinions are received in the area of objectives, preparation, nature of the presentation, and recommendation as to future services on the Cadre.

- Reports on all projects are kept on file and logged to indicate the nature of the service performed and the areas in which the services are requested.

Questions concerning the operation of the Consultant Cadre or requests for assistance through the Cadre may be directed to: Barbara L'Ecuyer, Coordinator, Consultant Cadre, Arizona Department of Education, 1535 West Jefferson, Phoenix, Arizona (Telephone: 271-5277).

APPENDIX K: BIBLIOGRAPHY FOR EVALUATION RESEARCH

Several excellent source documents are available presenting the methods and principles of evaluation research. A partial listing of such materials is presented below in a short bibliography.

Caro, F.G., ed. *Readings in Evaluation Research.* New York: Russell Sage Foundation, 1971.

Rossi, P.H. and Williams, W., ed. *Evaluating Social Programs: Theory, Practice, and Politics.* New York: Seminar Press, 1972.

Scriven, M., "The Methodology of Evaluation," in *Perspectives of Curriculum Evaluation,* pp. 39-83. Edited by R.W. Tyler, R.M. Gagne, and M. Scriven. AERA Monograph Series on Curriculum Evaluation, No. 1. Chicago: Rand McNally and Company, 1967.

Struening, E.L. and Guttentag, M., ed. *Handbook of Evaluation Research.* Beverly Hills, California: Sage Publications, 1975.

Suchman, E.A., "Action for What? A Critique of Evaluative Research" in *The Organization, Management, and Tactics of Social Research.* Edited by R. O'Toole. Cambridge, Massachusetts: Schenkman Publishing Company, 1970.

Weiss, C.H., *Evaluation Research: Methods for Assessing Program Effectiveness.* Englewood Cliffs, New Jersey: Prentice-Hall, 1972.

APPENDIX L: STAFF DEVELOPMENT CHECKLIST FOR LAUNCHING NEW EDUCATIONAL CONCEPTS

1. Identify and prioritize educational concepts for delivery to the local school districts.
2. Assess ADE staff competencies available for delivering the top priority concept.
3. Identify consultant help needed for competencies not available in ADE.
4. Develop project which will include: goals, objectives, activities, timeline and responsibilities, and budget.
5. Develop two-page prospectus which describes the project in a very brief format.
6. Present prospectus and project to top administration.
7. Obtain commitment from top administration in terms of: ADE staff member time, adequate funding for completing the project, and contents of the proposal.
8. Select and fund administering agency for the project.
9. Develop plan for implementation which coordinates the efforts of ADE staff and project staff.
10. Implement and manage the plan.
11. Conduct evaluation of ADE staff involvement and project results.
12. Move to the number two priority concept and repeat steps 2 through 11 until all priority areas are completed.